Kernel Transition to CMR Plan

This page details the steps to transition the ECHO Kernel from running in Torquebox deployed on ECHO hardware to running exclusively as a CMR deployed application on CMR hardware. This is part of the overall ECHO transition.

Desired End State

- Kernel only running on CMR hosts
- Publicly accessible on sit, uat, wl, ops
  - Workload wouldn't actually be publicly accessible since its "public" URL is only on NASA VPN.
- Kernel shutdown on old ECHO hosts
- Redirect in place from old public URLs
- Other ECHO and CMR apps pointing at the CMR kernel directly
- All existing functionality works

Current State

The steps here start from the current state of the Kernel running on CMR hardware.

- echo-kernel-app CMR repository has been created.
- The Kernel can run much like any other CMR app.
- Deployable to SIT via bamboo.
- Not all functionality is working.
  - Auditing aspects need to be fixed.
  - Ordering needs to be tested.
- Not publicly accessible in SIT

Steps

1. Fix auditing aspects (CMR-2449 - JIRA project doesn't exist or you don't have permission to view it.)
2. Get Team City tests running against Kernel app (CMR-2486 - JIRA project doesn't exist or you don't have permission to view it.)
   a. We want to verify the kernel app functionality is working. We should use the echo-soap cucumber integration tests and the echo rest integration tests to verify that. This will be an initial set of testing but we don't expect to maintain those test suites over the long term.
3. Rename echo-kernel-app to soap-services-app (CMR-2487 - JIRA project doesn't exist or you don't have permission to view it.)
   a. We don't want to refer to ECHO or kernel anymore. We will publicly expose this code at https://cmr.earthdata.nasa.gov/soap-services for now.
4. Add public access in SIT (EI-4515 - JIRA project doesn't exist or you don't have permission to view it.)
5. Test ordering in SIT (CMR-2447 - JIRA project doesn't exist or you don't have permission to view it.)
6. Test ordering and fix firewall issues in UAT (CMR-2461 - JIRA project doesn't exist or you don't have permission to view it.)
7. Configure all ECHO/CMR instances to use WL CMR kernel (CMR-2488 - JIRA project doesn't exist or you don't have permission to view it.)
8. Configure all ECHO/CMR instances to use SIT (CMR-2489 - JIRA project doesn't exist or you don't have permission to view it.)
   a. PUMP, Reverb, echo rest, catalog rest, form tool, etc (look in echo deployments) configurations must be updated to use the CMR endpoint
9. Determine technical redirect solution (EI-4525 - JIRA project doesn't exist or you don't have permission to view it.)
   a. CMR dev will work with SAs to come up with the best solution.
   b. Options include real redirects, tunneling using F5 or other hardware (SAs will have to check feasibility), or a simple deployed application that forwards requests to CMR.
10. Setup redirect solution in SIT
11. Period of testing in SIT.
    a. During this period the CMR deployed kernel will be the only instance of the ECHO kernel being used. After some period of time has passed and problems have been ironed out we will proceed to UAT.
12. UAT rollout
    a. Deploy to UAT
    b. Configure all ECHO/CMR instances to use UAT soap-services

    c. Setup redirect in UAT
13. Ops rollout
    a. Deploy to Ops
    b. Configure all ECHO/CMR instances to use Ops CMR soap-services
    c. Setup redirect in Ops
14. Shutdown and disable old ECHO Kernel deployments
    a. Cleanup team city and remove builds no longer needed.